

DEMES, A.

TECHNOLOGY

Periodical: YEARBOOK Budapest 1956/57 (published 1956)

DEMES, A. Comparative studies on the solanine content of the potato. p. 31

Monthly List of East European Accessions (EEAI) IC, Vol. 8, No. 5,
May 1959, Unclass.

DENES, A.

TECHNOLOGY

Periodical: YEARBOOK Budapest 1956/57 (published 1958)

DENES, A. Report on chlorinated hydrocarbon containing insecticides residues in foodstuffs. Determination of DDT in cereals and fats. p. 32.

Monthly List of East European Accessions (SEMI) 10, Vol. 6, No. 5,
May 1959, Unclass.

DENES, A.

TECHNOLOGY

Periodical: YEARBOOK Budapest 1956/57 (published 1958)

DENES, A. Estimation of residues originating from parathion containing insecticides p. 34.

Monthly List of East European Accessions (EEAI) LC, Vol. 1, No. 5,
May 1959, Unclass.

DENES, A.

A survey on systemic insecticides. p. 39

Budapest, Hungary. Helmezesrudimanyi Intezes. YEARBOOK. Budapest, 1959.

Monthly list of East European Accession (EEA I) LS, Vol 1, no. 2, Feb. 1960

Incl.

DENES, A.

Examination of DDT-containing insecticide residues on potatoes and in
soils from potato crops. p. 40

Budapest, Hungary. Elelmezesrudimanyi Inteaer. YEARBOOK. Budapest, 1959.

Monthly list of East European Accession (EEA: I) LJ, Vol ~~XXXXXXXXXXXXXXX~~
9, no. 2, Feb. 1960
Uncl.

Sz. DENES, Anna; BOTOND, Gyula, technikai munkatars

Analysis of the decomposition of parathion spray residues
on apples. Elelm ipar 11 no.7/8:182-185 0 '57.

1. Orszagos Elelmezes- es Taplalkozastudomanyi Intezet, Budapest.

FUZI, Miklos, dr.; DENES, Bertalan, dr.; SZENTGYORGYI, Zsuzsa, dr.

Sensitivity to antibiotics of Haemophilus influenzae strains.
Orv. hetil. 105 no.9:391-395 1 Mr'64.

1. Budapesti Orvostudományi Egyetem, Mikrobiológiai Intézet.

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DENES, E.; FORGO, S.

Model designs of railroad bridges with buckle plate (1958). (To be contd.) p.335.

MELYEFITESTUDOMANYI SZEMLE. Budapest, Hungary. Vol. 9, no. 7, July 1959.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

BARNABAS, Gabor; DENES, Ferenc

Development of the population's living conditions during the
period of the Second Five-Year Plan. Stat szemle 40 no.6:583-
608 Je '62.

1. Kozponti Statisztikai Hivatal foeladoja.

DENES, Ferenc, fceloado; JUFASZ, Imre

Significance and development of sheep breeding in Hungary. Stat
szemle 41 no.8/9:802-812 Ag-S '63.

1. Central Statistical Office, Budapest (for Denes).
2. Ministry of Food, Budapest (for Juhasz).

DENES, G.

"Enzymatic Synthesis of Glutamine and Asparagine." p. 23. (Acta Physiologica, Supplement.
to v. 4, 1953. Budapest.)

Vol. 3, No. 6

SO: Monthly List of East European Accessions, Library of Congress, June 1954, Uncl.

DEMETS, G.; GAZDA, Z.

Studies on the enzymatic synthesis of acid amide and peptide bonding.

I. Enzymatic synthesis of glutamine in *Lupinus albus*. Acta physiol. hung.
4 no.1-2:1-12 1953. (OIML 25:1)

1. Of the Medical Chemistry Institute of Budapest University.

DENES, G.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Biological Chemistry

(4) CW
Structure of poly-D-glutamic acid isolated from capsulated strains of *Bacillus anthracis*. V. Bruckner, J. Kovács, and G. Dénes (Univ. Budapest). *Nature* 172, 508 (1953). — The polypeptide was prepd. by using nonsporing capsulated *Bacillus anthracis* strains of low virulence. The crude polypeptide was isolated from agar cultures of this strain, dried *in vacuo* at room temp., esterified with methyl alc. by addn. of acetyl chloride, and repeatedly fractionated from methanol by pptn. with increasing quantities of ether. The av. mol. wt. of the cold water-insol. fraction was 45,000-63,000. It is suggested that in this fraction of poly-D-glutamic acid of *B. anthracis*, the γ -glutamyl link is predominant. J. C. Arthur, Jr.

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HUNG.

Enzymic synthesis of acid amide and peptide linkages.
*11. Mechanism of fluoride inhibition of glutamine synthetase and the prosthetic group of enzymes. G. Dienes (Med. Univ., Budapest). *Acta Physiol. Acad. Sci. Hung.* 6, 291-8 (1954) (in German).—Co and Mg ions activate animal and plant glutamine synthetase. The mechanism of F⁻ inhibition is ascribed to its competitive inhibition of the activation effect of Mg⁺⁺. The purified enzyme behaves like a metalloprotein contg. Mg. W. H. Fishman.

Dénes, G.

✓ Glutamine synthetase: its stereospecificity and changes induced by activating ions. G. Dénes (Med. Univ., Budapest). *Biochim. et Biophys. Acta* 10, 196-7 (1954); cf. *C.A.* 47, 6904a. — It is shown that the stereospecificity of glutamine synthetase (I) contg. a metal prosthetic group is detd. not by the protein alone, but by the protein-metal complex. I, contg. no racemase, was capable of synthesizing the corresponding hydroxamic acid from L(+)- and D(-)-glutamic acid on activation with Mg^{++} . When Co^{++} was used for activation, I catalyzes the reaction from L(+)-glutamic acid only. D(-)-Glutamic acid inhibited competitively Co^{++} -activated I. Morton Pader.

DENES, G.

✓ 3801. Enzymatic synthesis of γ -poly-D-glutamic acid by *Bacillus subtilis*. G. Denes. *Acta physiol. Acad. Sci. hung.*, 1955, 7, 183—184.
—Incubation of an acetone ppt. obtained from homogenates of *B. subtilis* with D-glutamine led to the formation of γ -glutamyl-glutamine and glutamic acid. Addition of glutamic acid or other amino acids to the reaction mixture did not affect the reaction with glutamine. (Hungarian) A. H. L. BEZNÁK.

DENES-G.

28. On the structure of natural D-poly-glutamic acids, V.
(In German) V. Bruckner, J. Kovács, I. Kaudel, G. Denes. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 7, 1955, No. 1-2, pp. 223-232, 2 figs.

No alpha-glutamyl bonds could be detected even by extremely sensitive paper chromatographic methods in the D-poly-glutamic acid derivatives of different molecular weight (*subtilis*-polypeptides) isolated from the media upon which an appropriate strain of *Bacillus subtilis* had been grown. The degradation experiments were extended to *anthracis*-polypeptides of high molecular weight (48,500) isolated from the capsules of *Bacillus anthracis*. A compound — beta-formylpropionic acid — was identified among the degradation products by preparative methods indicating the presence of gamma-glutamyl bonds in the substances investigated. Control experiments were carried out by paper chromatography but no alpha-gamma-diaminobutyric acid was detectable which would indicate the presence of alpha-glutamyl bonds. Experimental investigation of the degrada-

tion products seems to justify the assumption that all naturally occurring D-poly-glutamic acids — although of different molecular weight — possess the same basic constitution.

DFNES, G.

Investigation of the adaptive enzyme synthesis of the protoplasts of the E. Coli bacteria. p. 249.

A MAGYAR TUDOMÁNYOS AKADEMIA V. OSZTÁLYA BIOLÓGIAI CSOPORTJÁNAK KIZIEMÉSEI.
Budapest, Hungary. Vol. 2, no. 2, 1958.

Monthly List of East European Accession (EEAI), LC, Vol. 9, no. 2, Feb. 1960

Uncl.

DENES, G.

Regulation of the induced β -galactosidase synthesis in *Escherichia coli*. *Acta physiol. hung.* 20 no.3:207-216 '61.

1. Institute of Medical Chemistry, Medical University, Budapest.

(*ESCHERICHIA COLI* metabolism)
(CARBOHYDRASES metabolism)

DENES, G.

The effect of lactose and thiogalactosides on the multiplication of β -galactosidase constitutive mutants of Escherichia coli. Acta physiol. hung. 20 no.3:217-227 '61.

1. Institute of Medical Chemistry, Medical University, Budapest.

(CARBOHYDRASES metabolism) (ESCHERICHIA COLI pharmacology)
(LACTOSE pharmacology) (GLYCOSIDES pharmacology)

HUNGARI

DENES, Geza, FARAGO, Anna; Medical University of Budapest, Institute of
Medical Chemistry (Budapesti Orvostudományi Egyetem, Orvosi Vegytani Intézet).

"Properties of the Allosteric Enzymes of Arginine Biosynthesis in
Chlamydomonas Reinhardtii."

Budapest, A Magyar Tudományos Akadémia Biológiai Tudományok Osztályának
Közleményei, Vol VIII, No 2, 1965, pages 195-201.

Abstract: The characteristics of feed-back inhibition of enzymes in amino acid biosynthesis are described in general. These were demonstrated by specific experiments involving arginine biosynthesis in fresh-water algae, starting with acetylglutamic acid. The feed-back sensitive enzyme, acetylglutamic acid-gamma-phosphokinase, can be inhibited with arginine. Mg^{++} and ATP are needed for the reaction. To measure the enzyme activity, the reaction mixture was incubated in the presence of NH_2OH and the product was determined as a hydroxamic acid. The experiments were carried out with a 20-fold purified extract of the enzyme. The pH optimum of the catalytic action and inhibition of the enzyme, the similar but weaker action by arginine analogues are reported. By using urea in less than 1.5 M concentration, a reversible suspension of feed-back inhibition was achieved with intact enzyme activity. By the addition of more arginine, inhibition can be achieved

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DENES, I.

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11268 (German) Thiazol quinazoline, Thiazoloquinoline, I.
Thiazolo [4,5-b] Quinoline Substituted in the Thiazolo Quinoline
Im Thiazolkern Substituenten Thiazolo [4,5-b] Quinoline
I. Tancigian and I. Denes, *Chemische Berichte*, v. 90, no. 4
1957, p. 495-499.
A study of the oxidation of 2-mercaptothiazolo [4,5-b] quino-
line and a determination of the reactivity of the sulfo-group of
thiazolo [4,5-b] quinolyl-sulfonic acid. Production of deriva-
tives.

om 1958

DENES, I.

Thiazoloquinolines. IV. The chlorination of the 2-mercapto derivatives of the thiazolo[4,5-b]- and -[5,4-b]-quinolines. I. Tănăsescu, I. Dénés, and Gh. Rumi (Acad. Romanian Peoples Republic, Cluj). *Chem. Ber.* 92, 869-71 (1959); cf. *C.A.* 53, 1844g. — The chlorination of 2-mercaptothiazolo[4,5-b]quinoline (I) and the [5,4-b]-isomer (II) of I in AcOH yields the corresponding 2-Cl analogs, I (2 g.) in 50 cc. AcOH and 10 cc. H₂O treated with Cl to soln., filtered, poured into about 600 cc. H₂O, and filtered, and the moist residue recrystd. from aq. EtOH yielded 60% 2-Cl analog (III) of I, m. 169-91° (decompn.). III (0.5 g.) and 0.5 g. CS(NH₂)₂ in 10 cc. EtOH warmed 1-3 min. and filtered, and the residue dissolved in 2N NaOH and reprecipd. with AcOH yielded almost 100% I, m. 296-7° (decompn.) (AcOH). III (0.5 g.) ground with a little EtOH, treated with 10 cc. N NaOH, boiled 5-10 min., cooled, and acidified with dil. AcOH yielded 60% 2-OH analog of I, m. 316-17° (decompn.) (iso-AmOH). III (0.5 g.) in alc. NH₃ heated 2 hrs. at 100° in a sealed tube, cooled, and dild. with H₂O yielded 60% 2-NH₂ analog (IV) of I, m. above 360° (aq. EtOH). III (0.7 g.) in alc. NH₃ kept overnight in a sealed vessel, dild. with H₂O, and filtered gave 0.4 g. IV. 2-Chloro-3-aminoquinoline (1.8 g.) in 200 cc. EtOH heated about 6 hrs. on the water bath with 2.4 g. crys. Na₂S in 200 cc. H₂O and 2-3 cc. CS₂, the mixt. dild. with an equal vol. of H₂O, the CS₂ evapd., and the residual mixt. acidified with AcOH gave nearly 100% II, m. 278° (decompn.)

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(AcOH). 2-Cl analog (V) (0.2 g.) of II and 0.1 g. CS₂ (NH₃) in 10 cc. EtOH refluxed 3 hrs., cooled, and filtered, and the residue (0.17 g.) dissolved in N NaOH, filtered, and reprecipd. with AcOH gave II, m. 276-8° (decompn.). II (1.8 g.) in 100 cc. glacial AcOH treated with Cl to soln., filtered, poured into 500 cc. H₂O, and filtered yielded 70% V, m. 151° (aq. EtOH or petr. ether). V (0.2 g.) in 30 cc. 0.1N NaOH refluxed 0.5 hr. and the soln. filtered and acidified with AcOH yielded 0.13 g. 2-OH analog of II, m. 278-30° (decompn.) (aq. EtOH). V (0.3 g.) and alc. NH₃ heated 2 hrs. at 100° in a sealed tube and dild. with H₂O gave the 2-NH₂ analog of II, m. 249-4° (decompn.) (aq. EtOH). 2-NH₂ analog (0.18 g.) of II in 20 cc. H₂O treated at room temp. with a small excess of the appropriate amine gave the corresponding 2-(substituted-amino) analog (VI) of II (method A). V (0.2 g.) in 40 cc. EtOH treated with excess amine and the mixt. stored 40 hrs. gave the corresponding VI (method B). The following VI were prepd. by these methods [2-(substituted-amino) group, m.p., crystal form, and % yields by method A and B given]: PhNH₂, 243-4° (PhMe), needles, 68, 75; PhNHNH₂, 285-7° (EtOH), prisms, 80, 82; piperidine, 151-2° (aq. EtOH), needles, 37, 84; MeNH₂, 267° (aq. EtOH), needles, 80, 78 (refluxed 4 hrs.); EtNH₂, 180° (aq. EtOH), plates, —, 78.

F. W. Hoffmann

DENES, I.

~~BUKI~~-BUKI, Bela; DENES, Ivan; KOVACH, Arisztid; EIRO, J.;

Conditioned reflex method for experiments to be performed on several rats simultaneously. Kiserletes orvostud 9 no.5-6:545-550 Oct-Dec 58.

1. Budapesti Orvostudományi Egyetem Klettani Intézete.

(REFLEX, CONDITIONED

method for exper. performed on several rats simulataneously
(Hun))

DENES, Ivan, dr.

The treatment of lumbago in general practice. Orv. hetil. 102 no.27:
1276-1277 2 Je '61.

1. Orszagos Mentoszolgalat Korbaza, Belgyogyaszati Osztaly.

(BACACHE ther)

HUNGARY

DENES, Ivan, Dr, AFRA, Denes, Dr; Institute of Postgraduate Medical Education, Department of Neurology (Orvostovábbképző Intézet, Ideggyógyászati Tanszék), and National Neurosurgical Scientific Institute (Országos Idegsebészeti Tudományos Intézet), Budapest.

"Intramedullar Epidermoid Tumor."

Budapest, Ideggyógyászati Szemle, Vol XIX, No 8, Aug 66, pages 249-252.

Abstract: The case of a 61 year old man with an intramedullar epidermoid tumor is reported together with a brief literature survey of the subject. The anamnesis did not contain any data which may have pointed to the possibility of exogenous implantation. The intramedullar localization would also contradict an exogenous origin. In spite of the advanced age of the patient and the slow course of the disease, it must be classified as congenital, which lends added interest to the case. All 9 references are Western.

DENES, I

BIRO, J.; BUKI, B.; DENES, I.; KOVACH, A.G.B.

Higher nervous activity of adrenalectomized animals after ischemia of the limbs. Acta physiol. hung. 14 no.1:45-56 1958.

1. Institute of Physiology and Department of Urology, Medical University, Budapest.

(EXTREMITIES, blood supply
exper. ischemiz, eff. on higher nerv. activity in adrenalectomized rats)

(CENTRAL NERVOUS SYSTEM, physiol.
eff. of exper. ischemia of extremities on higher nerv.
activity in adrenalectomized rats)

(ADRENALECTOMY, exper.
same)

DENES, Ivan, dr.; TUNKL, Erika, dr.

Modified permanganate reaction in diagnostic examination of
the cerebrospinal fluid. Ideggugy szemle 17 no.2:45-50 F'64.

1. Orvostavabbkepzo Intezet Idegosztalyanak kozlemenye.

*

D'YENESH, Ishtvan [Denes, I.]; SAS, Kal'man [Sas, K.]

Theory of acids and bases. Vest.AN Kazakh.SSR 17 no.1:34-44 Ja
'61. (MIRA 14:1)

(Chemistry, Physical and theoretical)

DENES, Istvan

The season's first international series of cinder track races.
Auto motor 14 no.13:27 J1 '61.

COMES, V.; GALEA, V.; WEINLICH, Margareta; SUCIU, D.; VALACZKAI, Clara; VLAD, Felicia; DENES, I.

Necessity of vitamin C for workers exposed to mercury. Studii cerc biochimie 8 no.1:33-41 '65.

1. Section of Food Hygiene, Institute of Hygiene and Public Health Cluj. Submitted June 28, 1964.

C.A.

DEARS, János

16

Continuously working brandy distillery and refinery.
- János Dénes. Hung. 138,888, Nov. 2, 1948. Structural
Details are given. István Finály

DENES, Janos, tudomanyos munkatars; CSIZMAZIA, Karoly, foelado

Individual planning and measurement of investment concentration
in relation to time. Epites szemle 7 no.4:124-127 '63.

1. Epitesgazdasagi es Szervezesi Intezet (for Denes).
2. Epitesugyi Miniszterium Kogazdasagi Foosztalya (for Csizmazia).

Denes, J.

Let us build workers' hotels of permanent character for the building industry.
p. 117.

EPITESUGYI SZEMLE. Budapest, Hungary. No. 4, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

DENES, J.

The representation of a permutation as the product of a minimal number of transportations, and its connection with the theory of graphs. In English. p. 63

MAGYAR TUDOMANYOS AKADEMIA MATEMATIKAI KUTATO INTÉZETÉNEK KOZLEMÉNYEI.
PUBLICATIONS OF THE MATHEMATICAL INSTITUTE OF THE HUNGARIAN ACADEMY OF
SCIENCES. Budapest, Hungary. Vol. 4, no. 1, 1959

Monthly list of East European Accessions (EEAI). I. Vol. 9, no. 1, Jan.,
1960

Uncl.

EXCERPTA MEDICA Ser 2 Vol 12/2 Physiology Feb 59

502. OPERATION-TOLERANCE IN ALBINO MICE AFTER WHOLE-BODY IR-
RADIATION - Műteti teherbíróképesség vizsgálata egész testbesugárzott
egerekben - Dénes J., Langer G. and Hetényi L. Honvéd Egész-
ségügyi Szolgálat - KISERL. ORVOSTUD. 1958, 10/2-3 (134-138) Graphs 3

The mortality of mice subjected to operation after whole-body irradiation with
small or large doses was significantly different from that of controls (non-
irradiated mice subjected to the same operation). This mortality was considerably
reduced by administration of streptomycin after irradiation plus operation. Opera-
tion performed immediately after the irradiation had a lower risk; the mortality
rose with increasing time interval between irradiation and operation, to a maximum
on the 2nd-3rd day followed by a gradual fall. These findings are in agreement

DENES, J.

Successful excision of an arterial embolus. Magyar Sebészeti
3 no.3:211-212 1950. (CML 20:1)

1. Of the Surgery Division (Head Physician -- Dr. Endre Mester,
Honorary University Lecturer), Bajcsy-Zsilinszky Hospital.

DENES, János

JANOS, Deneš, Dr.; IOVASZ, Laszlo, Dr.

Modern therapy of congenital megacolon. Orv. hetil. 100 no.7:243-248
15 Feb 59.

1. Az Istvankorház (igazgató főorvos: Katona István dr.) gyermeksebészeti
(főorvos: Deneš János dr.) és az Országos Reuma és Füdőgyógyászati Intézet
(igazgató főorvos: Farkas Károly dr.) sebészeti Osztályának (főorvos:
Verbelyi Tibor dr.) közleménye.
(MEGACOLON, surg.
surg., Swenson's technic (Hun))

WEILAND LEICHTNER, Zsuzsa, dr.; DENES, Janos

Epiphysiolysis of the proximal end of the femur in newborn infants. Magy radiol. 13 no.5:273-278 S '61.

1. Budapesti Istvan korhaz Rontgen es Gyermeksebeszeti osztalya.
(FEMUR fract. & disloc.) (INFANT NEWBORN diseases)

DENES, Janos, dr.; THUR, Antal, dr.; SZARHYASI, Margit, dr.

Meningo- and myelomeningoceles (follow-up study of 80 cases). Orv.
hetil. 102 no.1:22-25 1 Ja '61.

1. Budapesti Istvan Korhas, Gyermeksebészeti Osztaly.
(ENCEPHALOGELIE statist)

DENES, Janos, dr.; THUR, Antal, dr.; WITTEK, Laszlo, dr.

Successful surgery of congenital esophageal atresia with double
esophago-tracheal abscess. Orv.hetil. 102 no.36:1703-1705 3 S '61.

1. Budapesti Istvan korhaz, Gyermeksebészeti Osztaly.

(TRACHEA dis) (ESOPHAGUS abnorm)

DENES, Janos (MD.)

Mrs. WEIL, nee LEICHER, Zsuzsa

HUNGARY

MD

X-Ray and Child Surgery Department, Istvan Hospital
(Istvan Korhaz rentgen es gyermeksebészeti osztalya)

Budapest, Magyar Traumatologia, Orthopaedia, es
Helyreallito Sebészeti, No 3, Aug 62, pp 225-233.

"Fibrous Dysplasia."

Co-author:

DENES, Janos, MD, X-Ray and Child Surgery Department,
Istvan Hospital.

HUNGARY

CHERNAB, ARON. CHERNAB, Joseph: Biochemical Group of the Institute of Heredity and Genetics (Szarmazas es Örökletani Intézet Biokémiai csoportja) of MTE (Eötvös Loránd Tudományegyetem -- Eötvös Loránd University), Budapest.

"Information Theoretical Aspects of Protein Synthesis."

Budapest, Biológiai Közlemények, Vol 10, No 2, 62, pp 97-109.

Abstract: The article represents a brief summary of recent advances, mostly in the United States, in the elucidation of the coding of amino acid sequences in protein biosynthesis by appropriate nucleotide grouping in informational nucleic acid molecules. A discussion of the basic concepts of coding theory is followed by a sketch of the transmission of information within the cell and a summary of the amino acid code proper. The article is concluded with a review of some of the problems in coding. All of 27 references are Western.

1/1

DENES, Janos, dr.; DOMOTOR, Laszlo, dr.

Treatment of megacolon by rectal dilatation. Gyermekgyógyászat
14 no.10:302-307 0 '63.

1. Budapesti Istvan korház gyermeksebészeti osztály és
prosectura közlenye.

(MEGACOLON) (RECTUM) (BIOPSY)
(DIAGNOSIS, DIFFERENTIAL) (RADIOGRAPHY)
(PATHOLOGY)

HUNGARY

DENES, Janos, Dr; Istvan Hospital, Pediatric-Surgical Ward (Istvan-Korhaz, Gyermeksebészeti Osztaly).

"Malignant Tumors in Children."

Budapest, Orvosi Hetilap, Vol 104, No 39, 29 Sep 63, pages 1836-1840.

Abstract: The author discusses the almost world-wide increase of malignant diseases in children. Data on child mortality causes are compared between the U.S. and Hungary. The malignant tumors occurring in children are classified as to their frequency of location. The cause of these diseases is speculated on by the author. The differences in the morphological origin and in the course of malignant diseases between adults and children are discussed. Treatments and survival statistics are given. 3 Eastern European, 30 Western references.

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29

DENES, Janos, dr.; LEB, Jozsef, dr.; DOMOTOR, Laszlo, dr.

Fissura vesico-intestinalis. Crv. hetil. 105 no.35:1660-1661
Ag 30 '64.

1. Budapesti Istvan Korhaz, Gyermeksebészeti Osztaly es Prosectura.

DENES, Janos, dr.

Current advances in the surgical treatment of developmental defects of the gastrointestinal tract. Orv. hetil. 105 no.33:1537-1544 16 Ag '64.

I. Fovazost Istvan Korhaz, Gyermeksebészeti Osztaly.

CONGENITAL DEFECTS

HUNGARY

DENES, Janos, Dr; Istvan Hospital, Pediatric Surgical Ward (Istvan Korhaz, Gyermeksebészeti Osztaly), Budapest.

"Gastroschisis."

Budapest, Magyar Sebészeti, Vol XIX, No 2, Apr 66, pages 117-120.

Abstract: [Author's Hungarian summary] Gastroschisis is a rare developmental anomaly; through an opening in the abdominal wall to the right of the navel, the intestines and most of the other abdominal organs become prolapsed during intrauterine life. The reposition of the prolapsed intestines with thickened walls and adhesions, and the reconstruction of the abdominal wall is, in general, very difficult and is successful only in a minority of the cases. Of the 2 cases described, one, a mature newborn, survived the operation and has been developing normally during the 2 years of life. The other, a premature infant, died before surgery could be attempted. All 4 references are Western.

DENES, Jozsef (Budapest)

On a problem of L.Fuchs. Acta math Szeged 23 no.3/4:237-241 '62.

1. Submitted June 13, 1961.

DEMES, Jozsef; PASZTOR, Endre

On some problems of quasigroups. Mat koal MTA 13 no.2:109-
188 '63.

DENES, Jozsef

Generation of all n -order permutations. Mat lapok 15 no.1/3:
239-241 '64

L 10894-65 EFT(d)/EWP(k)/EWP(h)/EWP(1)/EWA(3)/EWA(4) Pt-4
ACCESSION NR: AP4049711 Z/0031/64/012/008/0546/0551

AUTHOR: Denes, L. (Engineer)

TITLE: Efficient machining of flanges and flanged components

SOURCE: Strojirenska vyroba, v. 12, no. 8, 1964, 546-551

TOPIC TAGS: industrial equipment, lathe

Abstract: Described is a single-purpose machine of the P-JVH 63 type equipped with a hydraulic boring unit, of the JH series and a pneumatic clamping device, designed and produced by the Prakovce engineering plant. The article contains diagrams and a table with important parameters. It is claimed that the productivity is 3 times higher than in conventional turret lathes. Also presented is the diagram of a proposed single-purpose machine enabling the machining of the entire flange in a single operation. Original article has 9 figures and 1 table.

Card 1/2

L 10894-65

ACCESSION NR: AP4049711

ASSOCIATION: ZP-CSVTS, strojaren, Prakovce (Engineering plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

JPRS

Card 2/2

L 17955-66

ACC NR: AP6009997

SOURCE CODE: CZ/0031/65/013/007/0470/0479

AUTHOR: Denes, Ladislav (Engineer)

14
B

ORG: Prakovce Machine Works, ZP-CSVTS (ZP-CSVTS, Strojaren Prakovce)

TITLE: General group classification and group machining of flange components

SOURCE: Strojirenska vyroba, v. 13, no. 7, 1965, 470-479

TOPIC TAGS: metal machining, industrial production, structural hardware

ABSTRACT: The article gives an account of solutions of "batch technology" (S. P. Mitrofanov's method) in small-part and small-series production at the Prakovce Machine Works. The manner in which the operations were broken down is described in detail. Orig. art. has: 9 figures and 4 tables. [JPRS]

SUB CODE: 13 / SUBM DATE: none

Cord 1/1

vmb

UDC: 621.002:338.453; 621.9.003; 621.643.412

HUNGARY

DENES, Lajos, chief referent; Ministry of Agriculture, Chief, Department of Animal Health (head of the chief department: KADAR, Tibor, Dr, cand. of vet. sci.) (Foldmuvellesugyi Miniszterium Allategeszsegugyi Fosztaly).

"The Bovine Tuberculosis Situation in Hungary I. Losses Caused by Bovine Tuberculosis."

Budapest, Magyar Allatorvosok Lapja, Vol 21, No 11, Nov 66, pages 481-483.

Abstract: [Author's English summary modified] The direct and indirect losses caused by bovine tuberculosis in 1965 are estimated by using statistical data for this year. In the calculation of direct losses it was estimated that animals infected with the disease show 10 per cent less gain in body weight, 5 per cent of the infected cows become infertile, there is a 12 per cent decrease in their milk production and a breeding period which is shorter by 1.5 lactation periods than that of healthy, non-infected animals. The indirect losses were calculated on the basis of losses caused by the bovine type of tuberculosis in humans and the additional costs resulting from the isolation of the infected herds from the non-infected ones. In total, bovine tuberculosis caused at least one billion Forints loss, in 1965, in Hungary. 4 Eastern European, 6 Western references.

1/1

DENES, László, dr.

Clinical data and observations on vascular syndrome of the medulla oblongata. Ideggyogy. szemle 15 no.5:134-139 My '62.

1. Nephadsereg Eu. Szolgalat, Kecskemet.

(MEDULLA OBLONGATA dis) (CEREBROVASCULAR DISORDERS)

DENES, Laszlo, dr.; PERNECZKY, Maria, dr.

Pathologically verified cases of occlusion of the posterior inferior cerebellar artery. On 2 types of lateral bulbar syndrome. Ideggyogy. szemle 14 no.5:136-145 My '63.

1. Bacs-Kiskun Megyei Tanacs Korhaza (ig. foo.: Takacs Sandor dr.)
Ideggyogyaszatanak (foo.: Denes Laszlo dr.) es Korbonctanak (foo.:
Lusztig Gabor dr.) kozlemenye.
(CEREBELLAR DISEASES) (CEREBELLAR EMBOLISM & THROMBOSIS)
(MEDULLA OBLONGATA) (DISEASES) (VOCAL CORD PARALYSIS)
(PULMONARY EMBOLISM)

PATAKY, Jozsef, dr.; DENES, Laszlo, dr.; JUHASZ, Gyorgy, dr.;
LUSZTIG, Gabor, dr.

On the possibilities of dextran therapy of senile atherosclerosis. Magy. belorv. arch. 16 no.2:85-89 My '63.

1. Bacs-Kiskun Megyei Tanacs Korhaza Rendelointezete Belosztalya,
Idegosztalya, Prosecturaja es a Szocialis Ctthon.
(ARTERIOSCLEROSIS) (DEXTRAN) (PLACEBOS)
(CEREBRAL ARTERIOSCLEROSIS) (CORONARY DISEASE)

DENES, Laszlo, okleveles gepeszmernok

~~PERSONNEL INFORMATION~~

Remark about Mechanical Engineer Gyorgy Then's article entitled "Utilization of steam power generating in boilers with natural circulation during the start of their operation." Energia es atom 16 no. 10/11 516 O '63.

1. Oroszlanyi Hoeromu.

DENES, Laszlo, dr.; SZANDANYI, Istvan, dr.

The role of the palm-chin and thumb-chin reflex in the diagnosis of cerebral concussion. Orv. hetil. 106 no.26:1208-1210 27 Je'65.

1. Bacs-Kiskun megyei Tanacs Korhaza, Ideggyogyaszati Osztaly
(foorvos: Denes, Laszlo, dr.) es Haleseti Sebészeti Osztaly
(foorvos: Jobbagy, Andor, dr.).

DENES, M.

"Oh, how many fish this great Balaton is producing...", but its production risks are to be exhausted thanks to bad management. p. 7.

(Allami Gazdasag. Vol. 9, mo. 3, Mar. 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

DENES, M.

Report on the 1956 Leipzig Fair. III. p. 301, GEP (Gepipari Tudományok
Egyesület) Budapest, Vol. 8, No. 8, Aug. 1956

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, No. 11, November 1956

DENES, Magda, dr.

Denis Diderot. Elet tud 18 no.40:1251-1254 6 0 '63.

DÉNES, M.

HUNG

71. The M_s temperature of steel, its determination and practical use — M. Dénes. (*Grp* — Vol. 6, 1954, No. 5, pp. 223—226, 4 figs.)

An approximating computation of the M_s temperature of steel based on chemical analysis is described. Knowledge of the M_s temperature of steel is absolutely necessary for the practice of step-wise and isothermal hardening. Heat treatment may be effected within the correct range of temperatures after a few trial treatments by using the described method. The approximate value of the M_s temperature being known, hardenable materials may be welded without the danger of flaws forming during heat treatment. The M_s temperature may be computed by means of two empirical formulae, one by Carapella and the other by Payson. The M_s temperature is greatly influenced by the temperature and the duration of austenitization. The effect of the latter on the M_s temperature is not taken into account by the two formulae, therefore, they are only valid if austenitization occurs at the temperature of $A_2 + 20$ — 50°C . as is customary in practice. Furthermore, these formulae are only valid for low-alloy structural steels with a carbon content of 0.2 to 0.8%. The computation is based on the quantity of the alloying constituents and their quantitative influence.

DENES, IL

Efficient reamer. p. 9 MUSZAKI ELET. (Muszaki es Termeszettudomanyos
Egyesuletek Szovetsege) Budapest Vol. 9 No. 12, Dec. 1954 (Magyar
technika)

SOURCE: East European Accessions List (EEAL). Library of Congress
Vol. 5, No. 6, June 1956

DENES, M.

Measuring the deformation of high-pressure cylinders by means of wires which measure dilations. p. 335. GEP. Budapest. Vol. 7, no. 9, Sept. 1955.

SOURCE: East European Accessions List (EEAL), IC, Vol. 5, no. 2. Feb. 1956.

DEMES, K.

Hydroplastic clamp apparatus. p. 19. HUSZAKI ELET. Budapest Vol. 9,
No. 19, Oct. 1955

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 6, June 1956

DENES, M.

"A heavy-duty mechanically strengthened head of a milling machine with eight cutting edges."

p. 240 (Gep) Vol. 9, no. 6, June 1957.
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

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H/011/60/000/010/001/001
A054/A126

AUTHOR: Dénes, Miklós

TITLE: The present state and trends of fine-surface finishing

PERIODICAL: Gép, no. 10, 1960, 387 - 394

TEXT: In modern engineering the requirements for geometrical trueness, accuracy to gauge and surface finish are continuously increasing. The surface-finishing processes can be divided into two main groups; a) processes only polishing the surface without modifying the dimensions of the work-piece, b) processes polishing and simultaneously sizing the work-piece. In Hungary the number of surface-finishing machines compared with that of cutting equipment is fairly low, not more than 10%; in Czechoslovakia it amounts to 16%. The greater part of surface finishing machines consists of grinding machines, while the share of the actual fine-surface finishing machines is not more than 1%. Among the tests and investigations carried out in this country in connection with the well-known methods of super-finishing the following should be mentioned. In fine-boring, tests are being carried out with fixing the boring bits (hard-metal and ceramic) by means of synthetic adhesives instead of soldering, for which the Szerszámgépfejlesztő Inté-

Card 1/4

26899

H/011/60/000/C10/001/001

The present state and trends of fine-surface finishing

A054/A126

zet (Institute of Machine Tool Development) uses a Hungarian product, Polikon H1, with good result. In testing the durability of the cutting edge a method is applied based on the observation of back-wear. Tests are planned to measure the wear of hard-metal tips by means of radio-isotopes in the Institute of Machine Tool Development and the Csepel Isotope Laboratory. The highest wear resistance was found in the TiC-containing tips, which are produced in Hungary with a TiC-content of not more than 16% as compared with hardmetals used abroad which contain 21 - 30% TiC. The production of high TiC content hard-metal tips is in progress in the Kőbányai Vas-és Acélöntőde (Kőbánya Iron and Steel Foundry). Smoothness and rounding-off of the cutting edge are investigated in the Vasipari Kutató Intézet (Research Institute of the Ferrous Industry) by Szakács, György, Engineer. For measuring the edge smoothness, a Zeiss-microscope was used, but accurate figures can be obtained by the Leitz-Forster surface test, in which the measuring pin gauges the surface with 3,000 or 6,000 vibrations per minute at a cross-table feed of 1 - 15 mm/min. The profile of the gauged surface is photographed with a 200 x magnification and can be projected on the profilescreen at a 1000 x enlargement. There photos clearly show that the cutting edge, even when sharpened with diamond wheels, chips off. Thus, cutting is not carried out by a continuous smooth edge, but by a saw-shaped one. The rounding-off tests were carried out with a Schmaltz-

Card 2/4

26899

H/011/60/000/010/001/001

The present state and trends of fine-surface finishing

A054/A126

type surface tester in the eye-piece of which there was a film frame, with semi-circles on it, calibrated by a stage-microscope. By setting the semi-circles most accurately corresponding with the rounding-off of the edge, its value can be defined with fair accuracy. The radius of rounding-off, when grinding the cutting edge with SiC-wheels, was between 50 - 95 micron, when using diamond wheels: only 10 - 25 microns. When the durability of cutting edges sharpened with SiC and diamond wheels was investigated, it was found that in rough-cutting there is no great difference in this respect, only in finishing. In the Institute of Machine Tool Development tests were also made with LC96 type ceramic tips. It was found that at maximum cutting depths of 0 - 15 mm the edge of the ceramic tips chips off very quickly. The surface-smoothness values varied between 0.6 - 1 micron, but the tip did not keep its geometry for long. At very high cutting speeds the ceramic tips show more wear resistance than the hard-metal tips but, due to their brittleness, cannot resist impacts applied directly to the edge. The wear-values obtained for ceramic tips are inferior to those of hard-metal ones. In the Research Institute of the Ferrous Industry, fine-cutting tests are being carried out with conventional cutting machines having a sufficiently small feed and extremely high rate of revolutions. In this respect good results were obtained with a specially revised version of the EIN cutting machine. In the same institute suitable tools for fine-

Card 3/4

26899

H/011/60/000/010/001/001
A054/A126

The present state and trends of fine-surface finishing

milling were studied. The optimum radial back slope angle should be -30° , while a deviation of $\pm 20\%$ of this value did not considerably affect surface smoothness. The optimum value for the clearance angle was found to be $\pm 20^\circ$, the optimum radius of the rounding-off of the edge: 180 mm. By increasing the feed-velocity, the quality of the surface deteriorates only very slightly, and a surface-smoothness of 1 micron can be obtained with a very great output. In general, every milling machine can be used for fine-milling. In finish rolling Miklós Náray, Research Engineer, experimented in the Wilhelm Pieck Vagon- és Gépgyár (Wilhelm Pieck Waggon and Engineering Works) and designed a device for this purpose which can be mounted on any lathe. To gauge surface roughness, two new devices were developed in Hungary: the P 402 type which can be fed from the mains, while the other is a transistor-type roughness tester. Both devices measure with an accuracy of $\pm 15\%$ in the 0.1 - 30 micron range, divided into 6 scales. There are 10 figures and 23 references: 22 Soviet-bloc and 1 non-Soviet-bloc.

Card 4/4

DENES, Miklos; DENY, Miklos

Fine turning and fine boring with Hungarian-manufactured Fa-hard metal tips. Finommechanika 2 no.1:27-30 Ja '63.

1. Szerszámgepjleszto Intezet.

DENES, Miklos; RUDAS, Janos, dr.

Building box system in instrumentation. Ujit lap 12 no.12:10-11 25
Je '60.

1. Szerszámgepfeljeszto Intezet.

DENESI, Odon, Ybl-dijas, varosrendezo-epitesz (Pecs)

Thoughts about the future of the city of Pecs. Term tud
kozl 7 no.9:386-388 S. 163.

DENES, O.

II UN

21. Adjustment of continuous beam bridges by measuring the strength of the supports -- O. Denes, (Művelődéspolitikai Szemle -- Vol. 4, 1957, No. 4, pp. 198--223, 18 figs., 11 tabs.)

The article deals with the investigations made in connection with the measurement of reactions at the supports and with the adjustment of the structure over the supports on a recently erected continuous trussed girder bridge. The theory of the process and the evaluation of the results are discussed. Since, thus far, foreign literature has not reported on these measurements it may be considered to be of pioneering character. The distribution of stresses assumed in the designing of the structure can be checked and controlled by measuring the reactions at the supports. Hence, longitudinal and transverse shifting of support stresses due to faulty assembling may be

1/2

D. DETAILS

determined as well as faulty interaction caused by incorrect alignment and riveting of cross girders and crosspieces. By a simultaneous or one-sided lowering of the supports on one pier, values may be obtained for the longitudinal respectively transverse rigidity which can be compared with the computed values. It can be proved that the location of supports based on geometrical bases alone is not sufficient from the viewpoint of statics. It was established that the interaction of the main girders was considerably changed by the incorrect mounting of crosspieces. Therefore, it is deemed advisable that the final riveting of the transverse elements be effected only after the main girders have been erected on the supports. Moreover, it was proved that especially at the abutments the longitudinal distribution of the reactions undergoes important changes due to free assembly which involves significant changes in stress distribution.

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egp

DENES, Oszkar

"Calculation of Open Type Bridges". (To be continued).

SO: "Civil Engineering Review", Vol. II, No. 7, July 1952 (Hungary)

Dénes, O.

HUNG.

82. On the stability of the compression chord of a bridge without top bracing (In German) — O. Dénes, (Acta Technica Academiae Scientiarum Hungaricae — Vol. 9, 1954, No. 1-2, pp. 149-170, 14 figs., 4 tabs.)

The study deals with the experiments covering a footbridge without top bracing and the results of measurements. Concordant results of theory and practice established that under no circumstances does the top chord buckle square to the main truss along a length equal to the span between two points of junction but that the buckling length always exceeds this distance. Furthermore, it has been determined that the force transmitted by the chord to the columns is substantially smaller than the conventional force C established at 1/100 of the chord force by routine calculations. As a result of experiments and theoretical analysis, the new Hungarian Railway Bridge Regulations include specifications for the designing of bridges without portals and top bracing on a stability basis, disregarding force C . These new regulations already have resulted in the following advantages: (1) The reinforcement of existing bridges required by the former method in respect to stresses due to the overrating of force C have proved superfluous in most cases; (2) In the construction of new bridges about 20% of material used for rods can be saved without increasing the cross sectional area of chords.

DENES, C.

DENES, C. Designing and constructing concrete and reinforced-concrete bridges in
Czechoslovakia. p. 433.

Vol. 5, No. 10, Oct. 1955.

NELYEPITESTUDOMANYI SEMLE.

TECHNOLOGY

Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

DERES, C.

DERES, C. Procedure in designing, manufacturing, and erecting iron railroad bridges in Czechoslovakia. c. 181.

Vol. 5, No. 11, Nov. 1955.
MELYEFITESTULCMAYI SZEMLE.
TECHNOLOGY
Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

DENES, O.

Construction of bridge abutments, building materials used, experimental and study work in Czechoslovakia. p. 529.

Vol 5, no. 12, (Jan.) Dec. 1955. MELVEPI TESTUDOMANYI SZEMLE. Budapest, Hungary.

So: Eastern European Accession. Vol 5, no. 4, April 1956

Denes, O.

82. Adjustment of continuous trusses by reaction measurements (In German) O. Denes. (Acta Technica Academiae Scientiarum Hungaricae--Vol. 11, 1955, No. 3-4, pp 317-362, 15 figs., 12 tabs.)

Struct In Hungary long-span, continuous steel truss railway bridges rebuilt after the war are carefully adjusted subsequent to erection by precisely measured support reactions. The object of these reaction measurements and subsequent adjustments is to positively ensure the stress distribution assumed in the design stage in such structures. The paper deals with the developed theories of reaction measurements and of adjustments, the means and methods of practical execution and the obtained results and experiences. Based on the results of these measurements the study presents the main specifications in connection with the manufacture of steel structures and primarily with their erection.

VMH

DENES, O.

Construction of the underpass of Beke Road. p. 11.
(Melyepitestudományi Szemle, Vol. 7, no. 1/3, Jan./Mar. 1957. Budapest,
Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 1957. Uncl.

LEVARDI, Ferenc, dr.; OVARI, Antal; BUBICS, Gyorgy; DOMONY, Andras;
LOMNICZI, Dezso; GAGYI PALFFY, Andras, dr.; BENEDEK, Ferenc;
KOVACS, Dezso; MARTOS, Ferenc, dr.; DENES, Otto; SAFAR, Laszlo;
TAMASY, Istvan, okleveles banyamernok; POGZE, Laszlo; KREFFLY,
Gabor; BOCSANCZY, Janos; SCHMIEDT, Eligiusz Robert, dr.; KONRAD,
Odon, dr.

An account of the November 27, 1964 Executive Committee Session
arranged by the National Hungarian Mining and Metallurgic Society
in Salgotarjan. Bany lap 98 no.3:203-212 Mr '65.

1. President, National Hungarian Mining and Metallurgic Society,
Budapest (for Levardi). 2. Secretary General, National Hungarian
Mining and Metallurgic Society, Budapest (for Ovari). 3. Editorial
Board Member, "Banyaszati Lapok" (for Gagy-Palfy, Benedek, Martos
and Kreffly). 4. Deputy Head, Department of Mining Engineering
of the Ministry of Heavy Industry, Budapest (for Tamasy).

DENES

P

AUTHOR:

Denes E., P.,

48-8-25/25

TITLE:

Anisotropic Magnetic Protective Fillers (Anizotropnyye magnitnyye serdechniki)

PERIODICAL:

Izvestiya AN SSSR, Seriya Fizicheskaya, 1957, Vol. 21, Nr 8, pp. 1205-1215 (USSR)

ABSTRACT:

For the decrease of magnetic current losses the pressed magnetic protective fillers, which are of low magnetic current conductivity, are used. Their effective conductivity μ_m depends mainly on the quantity of insulation material used $\mu_m = 3/v$, where v is the insulation volume. According to Ollendorf's equation we have: $\mu_m = \frac{1+(\mu-1) [N(1-p)+p]}{1+(\mu-1)N(1-p)}$ where μ denotes the conductivity

of the ferromagnetic particles, N - the demagnetizing factor, and p -the share in the volume of the ferromagnetic particles. The first mentioned formula has practical application, where $\mu = 300$ and $v < 0,05$ is assumed. The greatest amount of conductivity is attained with permalloy fillers. On this occasion the application of binary permalloy alloys Ni-Fe with perhaps an addition of alloying chromium or molybdenum for the decrease of the coercitive force and the increase of the specific resistance is of practical use. This also leads to a reduction of hysteresis and Foucault

Card 1/3

Anisotropic Magnetic Protective Fillers.

48-8-25/25

currents. The highest degree of conductivity known in production (according to the data obtained from lists) is $\mu = 120$; the question arises whether it is possible to increase the conductivity of the filler without risking greater losses. It is contended here that such possibilities exist by 1) decreasing the corresponding volume of the insulator. In this case a certain type of silicon insulator with the conductivity μ is recommended; this is done by the formula $\mu \approx \mu_1^3 / v_1$. This is possible by the application of ferroceramic insulators, but in this case thermal treatment presents considerable difficulties. 3. Perfectioning of ferromagnetic basic material. In this case it is recommended to make the filler of lead-permalloy, This combination is here described as particularly useful, particularly because the lead content leads to the formation of an insulating dioxide layer on the surface of the filler, which is of practical use also in the case of thermal treatment. 4. A considerable increase of effective conductivity is theoretically possible when anisotropic fillers are used. The conductivity of a filler, which consists of isotropic but peculiarly distributed particles, is the same in all directions. Herefrom it must be concluded that the particles which are anisotropic according to their volume, can be ordered in a certain direction, if conductivity were different according to different

Card 2/3

Anisotropic Magnetic Protective Fillers.

48-8-25/25

directions, so that the possibility would arise in that case to make use of the most favorable direction. (Computations and examples are given). There are 5 figures and 4 non-Slavic references.

ASSOCIATION: Budapest, Hungary (Budapesht, Vengriya)

AVAILABLE: Library of Congress.

Card 3/3

DENES, PETER

Denes, Peter. Über den ersten Fall des letzten Fermatschen Satzes. Monatsh. Math. 54, 161-174 (1930).
 Conditions are obtained under which the equation $x^p + y^p = z^p$ has no solutions prime to p , not merely in rational integers x, y, z , but in integers in the cyclotomic field $K(\zeta)$, $\zeta = \exp(2\pi i/p)$. This generalizes the work of Furtwängler [Nachr. Ges. Wiss. Göttingen-Math. Phys. Kl. 1910, 551-562]. The original congruence conditions of Kummer are shown to hold in the extended sense. Mirimanoff's four congruence conditions are augmented by one. The simplest concluding theorem is that if the class-number of $K(\zeta)$ is not divisible by $p-1$, then the equation has no solutions prime to p in $K(\zeta)$. G. Poll (Chicago, Ill.)

Source: Mathematical Reviews.

Vol

12

No.

2

DÉNES, PETER

Dénes, Peter. Über die Unlösbarkeit der Diophantischen Gleichung $\xi x^p + y^p = p^s \cdot z^p$ in ganzen Zahlen x, y, z, m, n , wenn p eine reguläre Primzahl ist und $p > 3$. Monatsh. Math. 54, 175-182 (1950).

The equation in the title is shown to have no nonzero integer solutions x, y, z , if m and n are positive integers; also, if $p \equiv 1$ and $m \not\equiv 2 \pmod{3}$. More generally, in the real subfield $k(\zeta + \zeta^{-1})$, if E_1, E_2 , and E_3 are units and ξ, x, z are prime to the ideal $[A]$, $A = (1 - \zeta)(1 - \zeta^{-1})$, and s is an integer greater than p , then the equation $E_1 \xi^p + E_2 x^p + E_3 z^p = 0$ is impossible.

G. Pall (Chicago, Ill.).

Str. Hoff

Source: Mathematical Reviews,

Vol 12 No. 6

DANKS, PETER

Danks, Peter. Über relativ zyklische Körper vom Prim-
grad. Publ. Math. Debrecen 2, 64-65 (1951).

Let p be a prime & n an algebraic number field with class number relatively prime to p and K a cyclic extension of n of degree p . Let S be a generator of the Galois group of K over n . An ideal class A of K is called ambiguous if it is not the principal ideal class and if its (symbolic) $S-1$ power is the principal ideal class. The author proves that if there are no ambiguous ideal classes in K , then the class number of n is relatively prime to p . *H. M. M.*

87/11/1

Source: Mathematical Reviews, Vol. 13 No. 1

Dénes, Peter. An extension of Legendre's criterion in connection with the first case of Fermat's last theorem.

Publ. Math. Debrecen 2, 115-120 (1951).

By Legendre's criterion u is meant the theorem that if both l and $2l+1$ are primes, then the equation $(*) x^u + y^u + z^u = 0$ has no solutions x, y, z , prime to l . The present paper extends this result to cover 35 different cases as follows: Let u be any even number less than 104 not divisible by 6. If both l and $u!+1$ are primes, then $(*)$ has no solutions prime to l . This theorem is also proved for $u=110$. The results follow from the fact that this first case of Fermat's last theorem is proved for $l < 253747899$ [D. H. and Emma Lehmer, Bull. Amer. Math. Soc. 47, 139-142 (1941); these Rev. 2, 250]. The following lemma is used: Let u be a positive integer and ρ a primitive u th root of unity. Let $N_u(z)$ denote the norm of a number z in the cyclotomic field generated by ρ . If both l and $p = u!+1$ are primes and if $N_u(1+\rho^a+\rho^b)$ is divisible by p for no choice of the integers a and b , then $(*)$ has no solution prime to l . If u is not divisible by 5, then $N_u(1+\rho^a+\rho^b)$ cannot vanish. Furthermore, for a fixed u , if $N_u(1+\rho^a+\rho^b)$ does not exceed p , then the hypothesis of the lemma is satisfied. The author finds upper bounds for $N_u(1+\rho^a+\rho^b)$ which, for the u 's mentioned above, are in each case less than 253747899. D. H. Lehmer.

Source: Mathematical Reviews,

Vol 13 No. 9

Smw 1951

Dénes, Peter. Über Einheiten von algebraischen Zahlkörpern. Monatshefte Math. 55, 161-163 (1951).

Let K be an algebraic number field, and let k be a subfield of K . By the Dirichlet unit theorem, the group of units U_K of K is the direct product of the group V_K of the roots of unity in K by a free abelian group of rank $R = R_1 + R_2 - 1$, where R_1 is the number of real conjugates of K and R_2 is the number of complex conjugates of K . Let r, r_1, r_2 denote the corresponding numbers for k . The author considers the situation where $R = r$. In that case, if $U_k = V_k \times F_k$, with F_k free abelian, the factor group U_K/F_k is evidently of finite exponent. It follows immediately that if σ is an isomorphism of K onto one of its conjugates which leaves the elements of k fixed, and $u \in U_K$, then $\sigma(u)^{r-1}$ is a root of unity. The assumption $R = r$ holds in particular when K has a real subfield k over which it is of degree 2; for then $r_2 = 0$, $r_1 = R_1$, and $R_1 = 0$. Using the above, the author concludes that then the square of every unit of K is the product of a root of unity in K by a real unit of K . If all the roots of unity in K are of odd order it follows that every unit of K is the product of a root of unity in K by a unit which is either real or purely imaginary. G. Hochschild (New Haven, Conn.).

Number theory
Field

Source: Mathematical Reviews,

Vol 13 No. 3

some

DENIS, P.

"Diophantine approximations." Text in German. p. 179. (Casopis Pro Festovani Matematiky.
Czechoslovak Mathematical Journal. Vol. 1, no. 3, Feb. 1952. Praha)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Cong., Feb. 1954, Uncl.

DENES, P.

"New High-Frequency Products of the Hungarian Ceramic Industry" p. 120
(Magyar Híradastechnika, Vol. 4, No. 9/10, Sept./Oct., 1953, Budapest)

SO: Monthly List of East European Vol. 3, No. 3 1954
Accessions Library of Congress, March 1954, Uncl.

2

Dedekind, Peter. Über irreguläre Kreiskörper. Publ. Math. Darmstadt (1953), 17-23 (1954).

Let p denote an irregular prime, r a primitive root (mod p), $g = \frac{1}{2}(p-3)$, $\zeta = e^{2\pi i/p}$, $\Omega(\zeta)$ the cyclotomic field generated by ζ , $\lambda = 1 - \zeta$, $I = (\lambda)$. Let $B_1, \dots, B_g$ denote the Bernoulli numbers in the set $B_1, \dots, B_g$ that are divisible by p and let

$$B_{i,p^j} \equiv 0 \pmod{p^{j+1}} \quad (j=0, \dots, u_i-1), \\ B_{i,p^j} \not\equiv 0 \pmod{p^{j+1}} \quad (i=m_1, \dots, m_g).$$

The numbers $u_1, \dots, u_g$ are called the p -character of the Bernoulli numbers and the maximum value w is called the irregularity degree of the field $\Omega(\zeta)$ or of the prime p ; if p is regular define $w=0$. It is stated that for a fixed Bernoulli number B_m , the number u_m is finite; the proof is reserved for another paper.

The object of the present paper is the proof of results for irregular units analogous to theorems obtained by Kummer in the regular case. The following theorems are proved.

1. There exists in $\Omega(\zeta)$ a set of independent units $\eta_1, \dots, \eta_g$ such that

$$\eta_i \equiv 1 + \lambda^{2i} \pmod{I^{u_i+1}} \quad (i=1, \dots, g),$$

where $2i = u_i(p-1) + 2i$ and the u_i have the same meaning as above. 2. If p is of irregularity degree w and ϵ is a unit of $\Omega(\zeta)$ such that

$$D_{\lambda^i} \log \epsilon(\zeta) \equiv 0 \pmod{p^{u_i+1}} \quad (i=1, \dots, g)$$

(the symbol D denotes the derivative at $\zeta=0$), then ϵ is the p^w th power of a unit of $\Omega(\zeta)$. 3. If the unit ϵ is congruent to a rational number (mod p^{u_i+1}) then ϵ is the p^w th power of a unit of $\Omega(\zeta)$.

L. Carlitz (Durham, N. C.).

DE NE S, P

P 01 .

Dénes, P. Über den letzten Fermatschen Satz in relativ-
zyklischen Zahlkörpern. Ann. Polon. Math. 1, 77-89
(1954).

Let ζ be a primitive p th root of unity, where p is an odd regular prime, so that the class number of the field k_ζ generated by ζ over the rational number field is not divisible by p . For $i \geq 1$, let k_i be a field obtained by adjoining to k_{i-1} a p th root of a unit of k_{i-1} . In a previous paper [Monatsh. Math. 55, 229-232 (1954); these Rev. 13, 324], the author has shown that the class number of k_i is not divisible by p , and that, in k_i , (ζ) is a power of a prime ideal P_i (which, furthermore, is principal). Let H be any unit of k_0 and let n be any positive rational integer. The author shows here that there are no integers A_1, A_2 and A_3 in k_1 which are prime to P_1 and satisfy the equation

$$A_1^p + A_2^p = H(1 - \zeta)^{n-1} A_3^p.$$

G. Hochschild (Urbana, Ill.).

1 - P/W

Last theorem
of Fermat

Number theory

8mw

DEINES, Peter

1) Dénes, Péter. Über Grundeinheitssysteme der irregulären
Körper von besonderen Kongruenzeigenschaften. 1 - F/W
Publ. Math. Debrecen 3 (1954), 195-204 (1955).

Let p denote an odd prime, r a primitive root (mod p),
 $q = (p-3)/2$, ζ a primitive p th root of unity, $\Omega(\zeta)$ the
cyclotomic field, $\lambda = (1-\zeta)$, $L = (\lambda)$. In a previous paper
[same Publ. 3 (1954), 17-23; MR 15, 686], the writer
proved the existence of a set of independent units $\eta_1, \dots,$
 η_q of $\Omega(\zeta)$ such that

$$\eta_i \equiv 1 + \lambda^{2e_i} \pmod{L^{2e_i+1}} \quad (i=1, \dots, q),$$

where $2e_i = u_i(p-1) + 2i$, and $u_1, \dots, u_q$ denote the p -
character of the Bernoulli numbers. Theorem 1 of the
present paper guarantees the existence of a fundamental
set of units of $\Omega(\zeta)$ such that

$$(*) \quad \delta_i \equiv a_i + b_i \lambda^{2e'_i} \pmod{L^{2e'_i+1}} \quad (i=1, \dots, q),$$

where a_i and b_i are integers prime to p and

$$2e'_i = u'_i(p-1) + 2i.$$

The numbers $u'_1, \dots, u'_q$ are non-negative integers which
are referred to as the p -character of the fundamental
units. We have $u'_i \leq u_i$ for $i=1, \dots, q$.

(over)